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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/772,134	01/29/2001	David A. Lightfoot	1268/4/2	9557

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EXAMINER

KRUSE, DAVID H

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 09/16/2002

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant(s)

09/772,134

Applicant(s)

LIGHTFOOT ET AL.

Examiner

David H Kruse

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-80 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-80 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. § 121:
 - I. Claim 1, drawn to an isolated and purified genetic marker associated with linkage group G in the soybean genome, classified in class 536, subclass 24.3, for example.
 - II. Claim 2, drawn to an isolated and purified genetic marker associated with linkage group A2 in the soybean genome, classified in class 536, subclass 24.3, for example.
 - III. Claims 3-6, drawn to a plant or part thereof with SCN/SDS resistance response comprising a genome homozygous with respect to genetic alleles that evidences resistance to SCN/SDS in a locus mapping to linkage group G, classified in class 435, subclass 418, for example.
 - IV. Claims 3-6, drawn to a plant or part thereof with SCN/SDS resistance response comprising a genome homozygous with respect to genetic alleles that evidences resistance to SCN/SDS in a locus mapping to linkage group A2, classified in class 435, subclass 418, for example.
 - V. Claims 7-10, drawn to an isolated and purified biologically active SCN/SDS resistance polypeptide, classified in class 530, subclass 378, for example.

- VI. Claims 11-26 and 71-80, drawn to an isolated and purified nucleic acid molecule encoding a biologically active SCN/SDS resistance polypeptide, a transgenic plant comprising said nucleic acid molecule and a method of making said transgenic plant, classified in class 800, subclass 279, for example.
- VII. Claims 27-34, drawn to an isolated SCN/SDS resistance gene promoter vectors comprising said promoter and a transgenic plant comprising said promoter, classified in class 536, subclass 24.1, for example.
- VIII. Claims 35-37, drawn to an assay kit for detecting the presence of a nucleic acid molecule encoding a SCN/SDS resistance polypeptide comprising nucleic acid probes directed to linkage Group G of soybean, classified in class 536, subclass 24.3, for example.
- IX. Claims 35-37, drawn to an assay kit for detecting the presence of a nucleic acid molecule encoding a SCN/SDS resistance polypeptide comprising nucleic acid probes directed to linkage Group A2 of soybean, classified in class 536, subclass 24.3, for example.
- X. Claims 38-40, drawn to a method for determining the presence or absence of SCN/SDS resistance in a soybean plant associated with linkage group G, classified in class 435, subclass 6, for example.
- XI. Claims 38-40, drawn to a method for determining the presence or absence of SCN/SDS resistance in a soybean plant associated with linkage group A2, classified in class 435, subclass 6, for example.

- XII. Claims 41-43, drawn to a method of introgressing SCN/SDS resistance into non-resistance soybean germplasm comprising identifying one or more nucleic acid makers for marker assisted selection among soybean lines with makers map to linkage group G, classified in class 800, subclass 267, for example.
- XIII. Claims 41-43, drawn to a method of introgressing SCN/SDS resistance into non-resistance soybean germplasm comprising identifying one or more nucleic acid makers for marker assisted selection among soybean lines with makers map to linkage group A2, classified in class 800, subclass 267, for example.
- XIV. Claims 44-53, drawn to a method of positional cloning of a nucleic acid comprising identifying a nucleic acid genetically linked to a SCN/SDS resistance locus wherein the nucleic acid maps between two makers for linkage group G, classified in class 435, subclass 6, for example.
- XV. Claims 44-53, drawn to a method of positional cloning of a nucleic acid comprising identifying a nucleic acid genetically linked to a SCN/SDS resistance locus wherein the nucleic acid maps between two makers for linkage group A2, classified in class 435, subclass 6, for example.
- XVI. Claims 54 and 55, drawn to a method of making an antibody and antibody produced, classified in class 530, subclass 388.5, for example.

- XVII. Claim 56, drawn to a method of detecting a polypeptide comprising an immunochemical reaction, classified in class 435, subclass 7.1, for example.
- XVIII. Claim 57, drawn to a method of identifying a substance that modulates a SCN/SDS resistance polypeptide function, classified in class 435, subclass 4, for example.
- XIX. Claims 58 and 59, drawn to a method of detecting a nucleic acid molecule that encodes an SCN/SDS resistance polypeptide in a biological sample comprising forming a hybridization duplex, classified in class 435, subclass 6, for example.
- XX. Claims 60-62, drawn to a method of identifying soybean sudden death syndrome in a plant using a SDS resistance gene, classified in class 435, subclass 6, for example.
- XXI. Claims 60-62, drawn to a method of identifying a soybean syst nematode resistance in a plant using a SCN resistance gene, classified in class 435, subclass 6, for example.
- XXII. Claims 63-65, drawn to a method of identifying a candidate compounds as a modulator of SCN/SDS resistance activity, classified in class 504, subclass 116.1, for example.
- XXIII. Claims 66-70, drawn to a method of modulating SCN/SDS resistance in a plant comprising administering to a plant an effective amount of a substance, classified in class 47, subclass 58.1, for example.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I, II, III, IV, V, VI and VII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are unrelated because each invention encompasses compositions of matter that are structurally, compositionally and functionally distinct. In addition, the transgenic plant of Group VI cannot be made using the marker of Groups I or II, the polypeptide of Group V or the promoter of Group VII, because it does not comprise a coding sequence. In addition, the plants of Groups III and IV are produced using traditional breeding methods and thus do not comprise isolated nucleic acid molecules.
3. Inventions VIII and IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are unrelated because the kit of Group VIII detects a distinct linkage group from that of Group IX.
4. Inventions X-XXIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are unrelated because each distinct method has different starting materials, different method steps, different intermediate products and different end products.

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5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, recognized divergent subject matter, and because the search required for one of the groups is not required for another, restriction for examination purposes as indicated is proper.

6. Applicant is advised that the reply to this requirement to be complete within one month (not less than 30 days) must include an election of the invention to be examined even though the requirement be traversed (37 CFR § 1.143).

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR § 1.48(b) and by the fee required under 37 CFR § 1.17(i).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Kruse, Ph.D. whose telephone number is (703) 306-4539. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Amy Nelson can be reached at (703) 306-3218. The fax telephone number for this Group is (703) 872-9306 Before Final or (703) 872-9307 After Final.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Kim Davis whose telephone number is (703) 305-3015.

A handwritten signature in black ink, appearing to read "Amy Nelson", with a stylized flourish at the end.

AMY J. NELSON, PH.D
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600

David H. Kruse, Ph.D.
12 September 2002